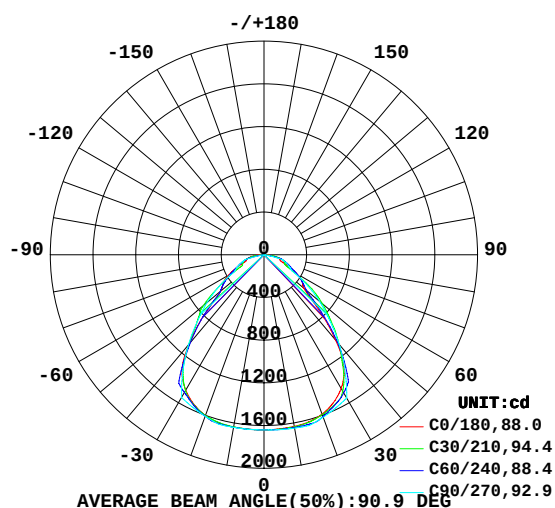


LUMINAIRE PHOTOMETRIC TEST REPORT

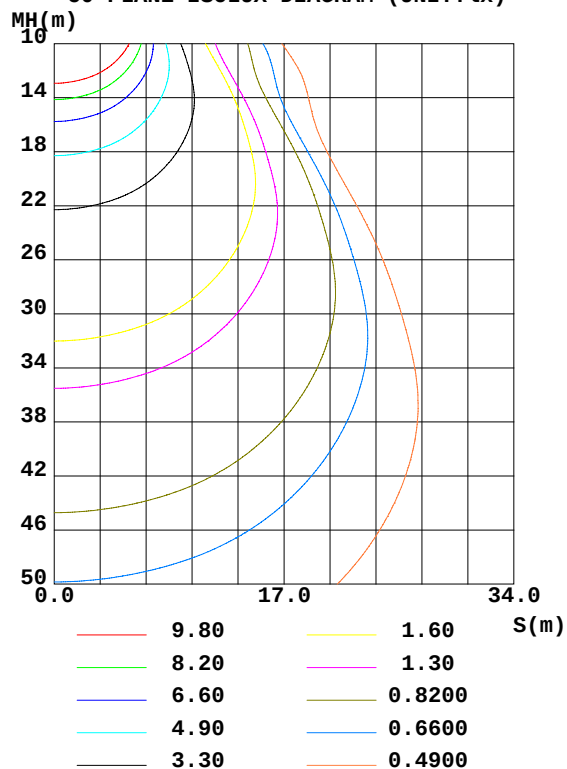
Test:U:219.2V I:0.1235A P:26.48W PF:0.9786 Freq:50.00Hz Lamp Flux:3716.95x1 lm		
NAME:174-755	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.:	SUR.:0.595*0.595	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 140.37 lm/W			
MODEL	174-755	Imax(cd)	1654	S/MH(C0/180)	1.26
NOMINAL POWER(W)	27	LOR(%)	100.0	S/MH(C90/270)	1.28
RATED VOLTAGE(V)	200-240	TOTAL FLUX(lm)	3716.9	η UP, DN(C0-180)	0.0, 49.9
NOMINAL FLUX(lm)	3716.95	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0, 50.1
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	220	η down(%)	100.0	CIBSE SHR MAX	1.35

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT: lx)



H(β) Range: -90 - 90DEG
 H(β) Interval: 1.0DEG
 Test Speed: HIGH
 Temperature: 28.5DEG
 Operators: Levy
 Test Date: 2020-03-30

V(B) Range: -75 - 75DEG
 V(B) Interval: 5.0DEG
 Test System: EVERFINE G0-2000A_V1 SYSTEM V2.0.362
 Humidity: 55.0%
 Test Distance: 10.300m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	1632	1640	1649	1643	1638	1638	1642	1635	0- 10	156.6	156.6	4.21, 4.21
20	1589	1617	1619	1618	1603	1611	1610	1611	10- 20	461.4	618.0	16.6, 16.6
30	1445	1460	1550	1463	1465	1464	1544	1459	20- 30	716.5	1335	35.9, 35.9
40	1042	1105	1096	1126	1088	1166	1101	1134	30- 40	820.3	2155	58, 58
50	489.7	658.2	680.2	667.3	531.4	683.7	693.3	661.8	40- 50	642.7	2798	75.3, 75.3
60	354.6	396.3	301.3	404.0	382.4	414.6	321.5	399.2	50- 60	442.1	3240	87.2, 87.2
70	167.3	226.4	218.5	229.3	187.4	228.6	231.0	223.0	60- 70	283.1	3523	94.8, 94.8
80	110.3	90.03	0	95.84	129.8	91.13	0	89.37	70- 80	169.4	3692	99.3, 99.3
90	13.19	0	0	0	16.05	0	0	0	80- 90	24.76	3717	100, 100
100									90-100			
110									100-110			
120									110-120			
130									120-130			
140									130-140			
150									140-150			
160									150-160			
170									160-170			
180									170-180			
DEG	LUMINOUS INTENSITY:cd									UNIT: lm		

Conical surface Flux(90deg): 2506.7 lm

%lum = 67.4%

%lamp = 67.4%

Conical surface Flux(120deg): 3239.6 lm

%lum = 87.2%

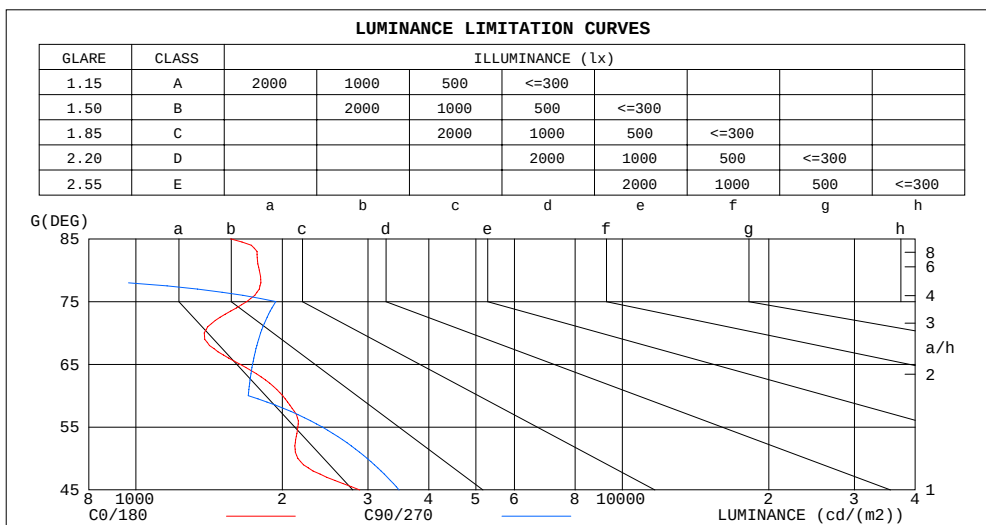
%lamp = 87.2%

H(β) Range:-90 - 90DEG
 H(β) Interval: 1.0DEG
 Test Speed: HIGH
 Temperature:28.5DEG
 Operators:Levy
 Test Date:2020-03-30

V(B) Range:-75 - 75DEG
 V(B) Interval: 5.0DEG
 Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.362
 Humidity:55.0%
 Test Distance:10.300m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:219.2V I:0.1235A P:26.48W PF:0.9786 Freq:50.00Hz Lamp Flux:3716.95x1 lm		
NAME: 174-755	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.:	SUR.:0.595*0.595	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	1565	0
80	1794	0
75	1691	1939
70	1382	1805
65	1637	1737
60	2003	1702
55	2153	2417
50	2152	2989
45	2884	3476

H(β) Range:-90 - 90DEG
 H(β) Interval: 1.0DEG
 Test Speed: HIGH
 Temperature:28.5DEG
 Operators:Levy
 Test Date:2020-03-30

V(B) Range:-75 - 75DEG
 V(B) Interval: 5.0DEG
 Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.362
 Humidity:55.0%
 Test Distance:10.300m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:219.2V I:0.1235A P:26.48W PF:0.9786 Freq:50.00Hz Lamp Flux:3716.95x1 lm									
NAME: 174-755					TYPE:			WEIGHT:	
SPEC.:					DIM.:			SERIAL No.:1	
MFR.:					SUR.:0.595*0.595			Shielding Angle:	

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.264	.150	.048	.257	.147	.047	.244	.140	.045	.232	.134	.043	.221	.128	.041	
2.0	.253	.139	.043	.247	.136	.042	.236	.131	.041	.226	.127	.040	.216	.122	.039	
3.0	.238	.127	.038	.233	.125	.038	.223	.121	.037	.214	.117	.036	.205	.114	.035	
4.0	.223	.116	.034	.218	.114	.034	.209	.111	.033	.201	.108	.033	.193	.105	.032	
5.0	.208	.106	.031	.204	.105	.030	.196	.102	.030	.189	.100	.030	.182	.097	.029	
6.0	.195	.098	.028	.191	.097	.028	.184	.094	.027	.178	.092	.027	.172	.090	.027	
7.0	.183	.090	.026	.180	.090	.026	.173	.088	.025	.168	.086	.025	.162	.084	.025	
8.0	.172	.084	.024	.169	.083	.024	.164	.082	.023	.158	.080	.023	.154	.079	.023	
9.0	.162	.079	.022	.160	.078	.022	.155	.077	.022	.150	.075	.022	.146	.074	.021	
10.0	.154	.074	.020	.151	.073	.020	.147	.072	.020	.142	.071	.020	.138	.070	.020	

ρ _{cc}	80%			70%			50%			30%			10%			0
ρ _w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ _{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.177	.157	.138	.152	.134	.119	.104	.092	.082	.060	.053	.048	.019	.017	.015	
2.0	.167	.132	.103	.143	.114	.089	.098	.079	.062	.057	.046	.036	.018	.015	.012	
3.0	.158	.114	.079	.136	.098	.068	.093	.068	.048	.054	.040	.028	.017	.013	.009	
4.0	.150	.100	.062	.129	.087	.054	.089	.060	.038	.051	.035	.023	.017	.012	.007	
5.0	.143	.090	.050	.123	.078	.044	.084	.054	.031	.049	.032	.018	.016	.010	.006	
6.0	.136	.081	.042	.117	.070	.036	.081	.049	.026	.047	.029	.015	.015	.009	.005	
7.0	.129	.074	.035	.111	.064	.031	.077	.045	.022	.045	.027	.013	.014	.009	.004	
8.0	.123	.068	.030	.106	.059	.027	.073	.042	.019	.043	.025	.011	.014	.008	.004	
9.0	.118	.063	.027	.101	.055	.023	.070	.039	.016	.041	.023	.010	.013	.007	.003	
10.0	.112	.059	.024	.097	.051	.021	.067	.036	.015	.039	.021	.009	.013	.007	.003	

$H(\beta)$ Range:-90 - 90DEG
 $H(\beta)$ Interval: 1.0DEG
 Test Speed: HIGH
 Temperature:28.5DEG
 Operators:Levy
 Test Date:2020-03-30

$V(B)$ Range:-75 - 75DEG
 $V(B)$ Interval: 5.0DEG
 Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.362
 Humidity:55.0%
 Test Distance:10.300m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:219.2V I:0.1235A P:26.48W PF:0.9786 Freq:50.00Hz Lamp Flux:3716.95x1 lm											
NAME: 174-755					TYPE:			WEIGHT:			
SPEC.:					DIM.:			SERIAL No.:1			
MFR.:					SUR.:0.595*0.595			Shielding Angle:			
ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3	
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3	
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
Room dimensions		Viewed crosswise					Viewed endwise				
x = 2H y = 2H	2H	10.6	12.0	10.9	12.2	12.4	10.7	12.1	11.0	12.3	12.5
	3H	11.6	12.8	11.8	13.0	13.3	11.8	13.1	12.1	13.3	13.5
	4H	12.0	13.2	12.3	13.5	13.7	12.3	13.5	12.6	13.7	14.0
	6H	12.5	13.6	12.8	13.9	14.1	12.3	13.5	12.7	13.7	14.0
	8H	12.6	13.7	13.0	14.0	14.3	12.3	13.4	12.6	13.7	13.9
	12H	12.7	13.8	13.1	14.1	14.4	12.2	13.3	12.6	13.6	13.9
4H	2H	11.0	12.2	11.3	12.4	12.6	11.1	12.3	11.4	12.5	12.8
	3H	12.1	13.2	12.5	13.5	13.8	12.4	13.5	12.8	13.7	14.0
	4H	12.8	13.7	13.2	14.1	14.4	13.1	14.0	13.4	14.3	14.7
	6H	13.4	14.2	13.8	14.6	14.9	13.2	14.0	13.6	14.4	14.7
	8H	13.6	14.4	14.0	14.8	15.1	13.1	13.9	13.5	14.3	14.6
	12H	13.8	14.5	14.2	14.9	15.3	13.1	13.8	13.5	14.2	14.6
8H	4H	13.1	13.9	13.5	14.2	14.6	13.3	14.1	13.7	14.5	14.8
	6H	13.9	14.5	14.3	14.9	15.4	13.5	14.1	13.9	14.5	14.9
	8H	14.2	14.8	14.7	15.2	15.7	13.4	14.0	13.9	14.4	14.9
	12H	14.5	15.0	15.0	15.5	15.9	13.4	13.9	13.9	14.3	14.8
12H	4H	13.1	13.8	13.5	14.2	14.6	13.3	14.1	13.8	14.4	14.8
	6H	13.9	14.4	14.3	14.9	15.3	13.5	14.1	14.0	14.5	14.9
	8H	14.3	14.7	14.7	15.2	15.7	13.5	13.9	13.9	14.4	14.9
Variations with the observer position at spacings:											
S = 1.0H		+ 0.4 / - 0.6					+ 0.5 / - 0.6				
1.5H		+ 0.3 / - 0.7					+ 0.3 / - 0.5				
2.0H		+ 0.6 / - 1.0					+ 0.7 / - 0.9				

CIE Pub.117, 3717 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 4.6$)

H(β) Range:-90 - 90DEG
 H(β) Interval: 1.0DEG
 Test Speed: HIGH
 Temperature:28.5DEG
 Operators:Levy
 Test Date:2020-03-30

V(B) Range:-75 - 75DEG
 V(B) Interval: 5.0DEG
 Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.362
 Humidity:55.0%
 Test Distance:10.300m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:219.2V I:0.1235A P:26.48W PF:0.9786 Freq:50.00Hz Lamp Flux:3716.95x1 lm		
NAME: 174-755	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.:	SUR.:0.595*0.595	Shielding Angle:

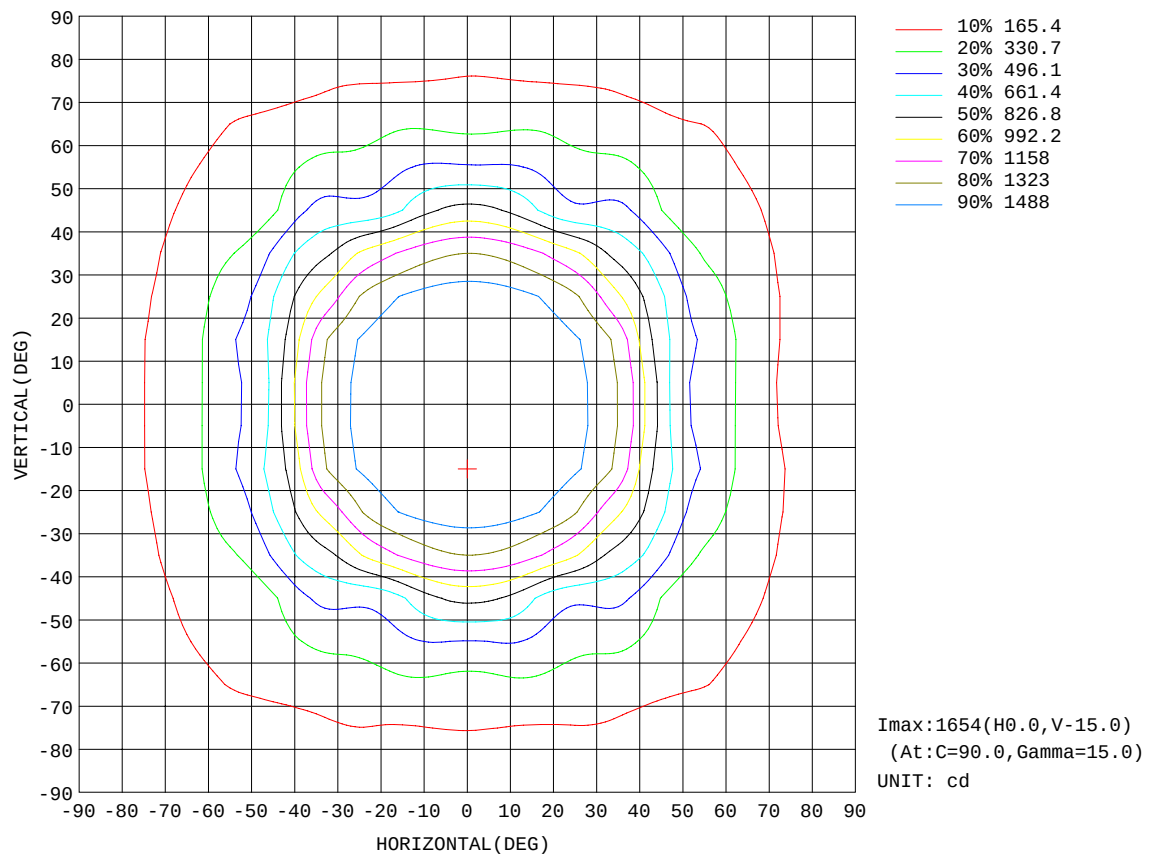
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	65	55	49	65	55	49	64	55	49	43
0.80	75	65	59	74	65	59	73	64	58	52
1.00	83	73	67	82	73	67	80	74	66	60
1.25	89	80	74	88	80	74	85	78	73	67
1.50	94	85	80	92	85	79	89	83	78	71
2.00	99	92	87	98	91	86	94	89	85	78
2.50	103	96	91	101	95	90	97	92	88	81
3.00	105	100	95	103	98	94	100	95	92	84
4.00	109	104	100	106	102	99	102	99	96	88
5.00	111	107	103	108	105	102	104	101	99	90
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

$H(\beta)$ Range:-90 - 90DEG
 $H(\beta)$ Interval: 1.0DEG
 Test Speed: HIGH
 Temperature:28.5DEG
 Operators:Levy
 Test Date:2020-03-30

$V(\beta)$ Range:-75 - 75DEG
 $V(\beta)$ Interval: 5.0DEG
 Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.362
 Humidity:55.0%
 Test Distance:10.300m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:219.2V I:0.1235A P:26.48W PF:0.9786 Freq:50.00Hz Lamp Flux:3716.95x1 lm		
NAME: 174-755	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.:	SUR.:0.595*0.595	Shielding Angle:

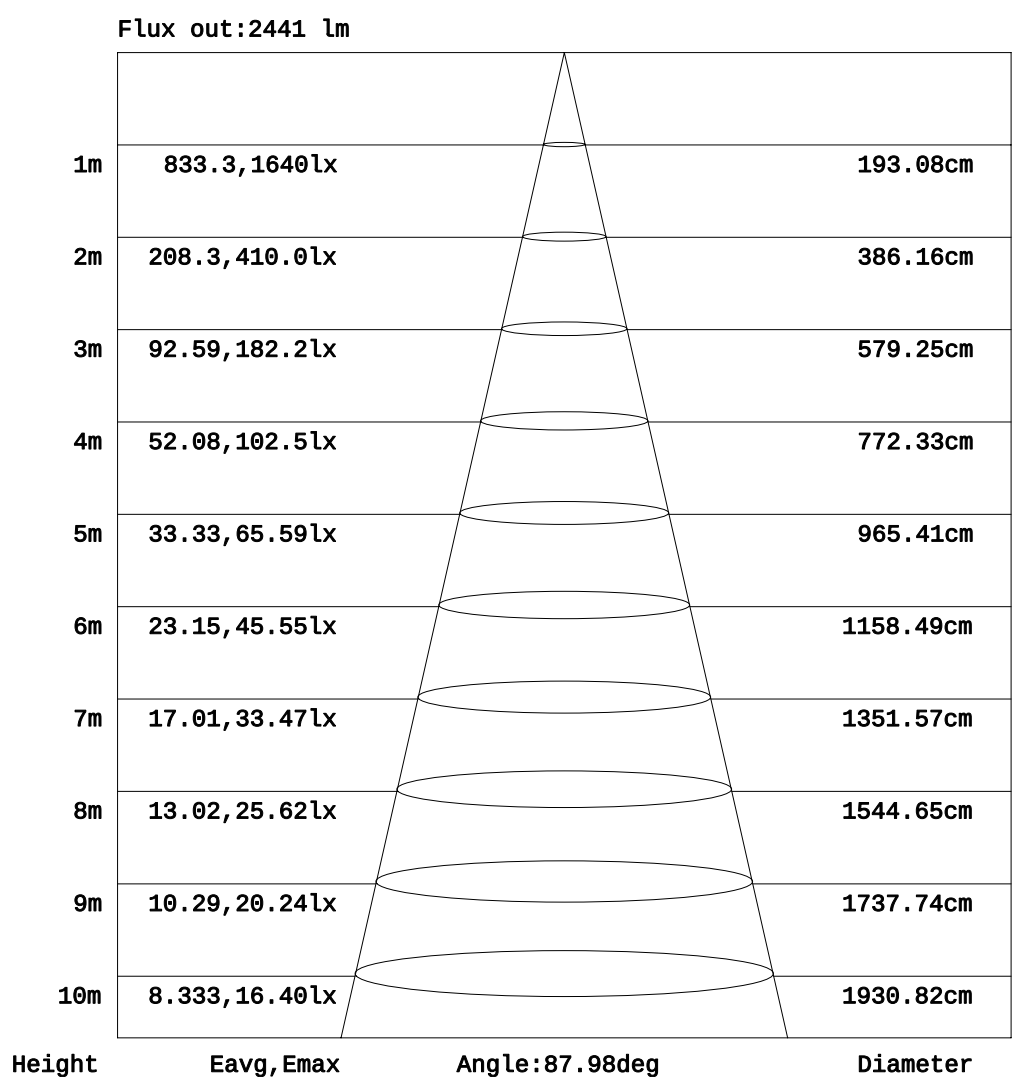


H(β) Range:-90 - 90DEG
 H(β) Interval: 1.0DEG
 Test Speed: HIGH
 Temperature:28.5DEG
 Operators:Levy
 Test Date:2020-03-30

V(B) Range:-75 - 75DEG
 V(B) Interval: 5.0DEG
 Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.362
 Humidity:55.0%
 Test Distance:10.300m [K=1.0000]
 Remarks:

AAI Figure

Test:U:219.2V I:0.1235A P:26.48W PF:0.9786 Freq:50.00Hz Lamp Flux:3716.95x1 lm		
NAME: 174-755	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.:	SUR.:0.595*0.595	Shielding Angle:

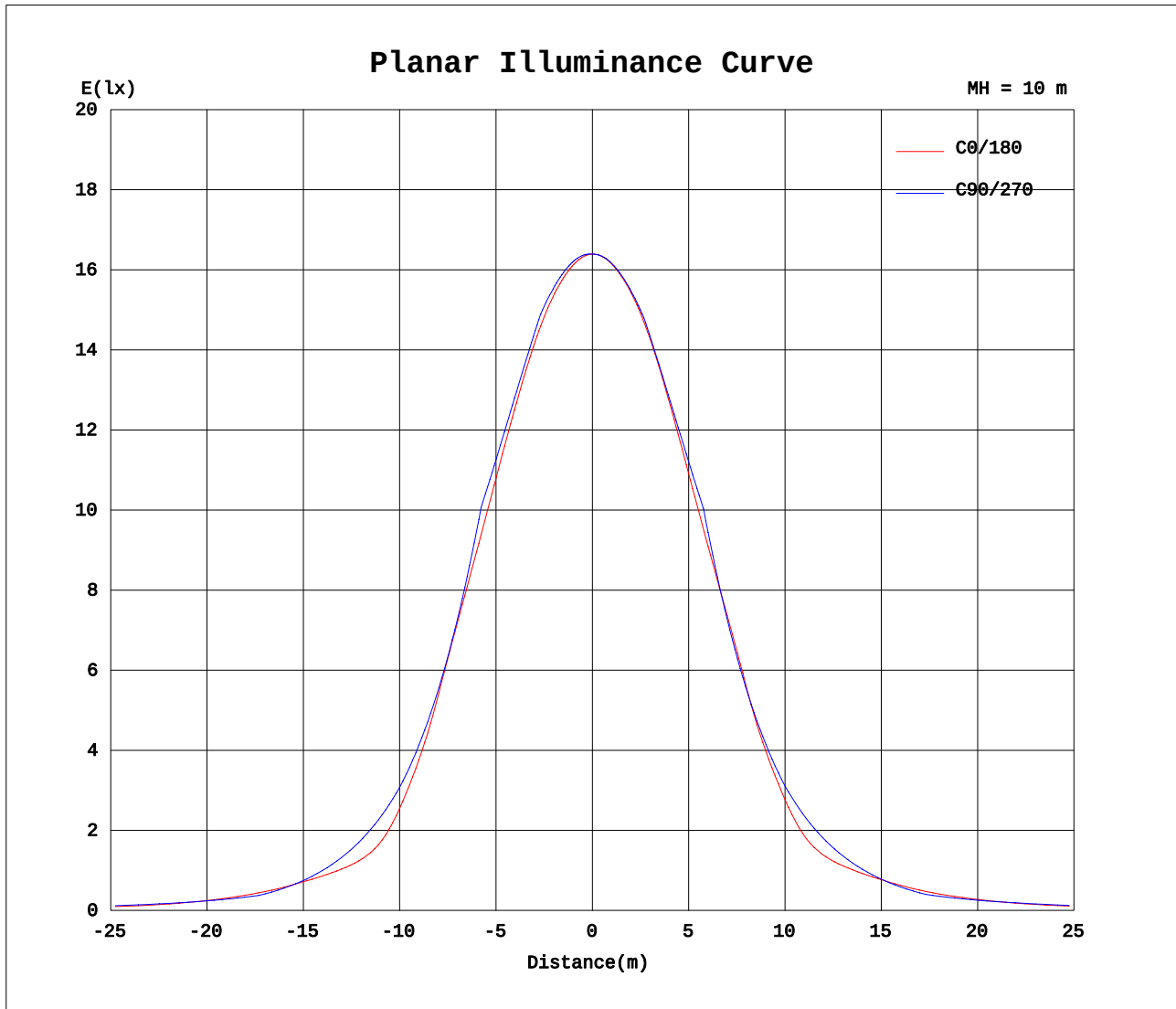


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:28.5DEG
Operators:Levy
Test Date:2020-03-30

V(B) Range:-75 - 75DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.362
Humidity:55.0%
Test Distance:10.300m [K=1.0000]
Remarks:

Planar Illuminance Curve



H(β) Range: -90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature: 28.5DEG
Operators: Levy
Test Date: 2020-03-30

V(B) Range: -75 - 75DEG
V(B) Interval: 5.0DEG
Test System: EVERFINE G0-2000A_V1 SYSTEM V2.0.362
Humidity: 55.0%
Test Distance: 10.300m [K=1.0000]
Remarks: